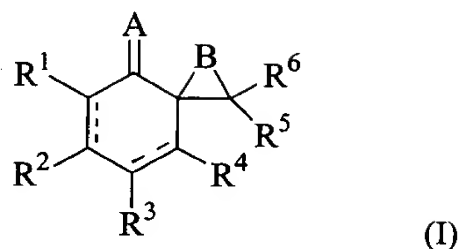


**WE CLAIM:**

1. A compound of the formula (I):

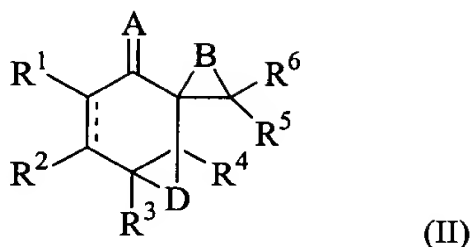


or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) A and B are independently O, S, NR<sup>7</sup> or CR<sup>7</sup>R<sup>8</sup>;
- (c) R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or XR<sup>9</sup> (wherein X = O, S or NR<sup>10</sup>);
- (d) alternatively, one or more of R<sup>1</sup> and R<sup>2</sup>, R<sup>2</sup> and R<sup>3</sup>, R<sup>3</sup> and R<sup>4</sup>, R<sup>4</sup> and R<sup>5</sup>, or R<sup>5</sup> and R<sup>6</sup>, come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (e) each R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup> and R<sup>10</sup> is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

2. A compound of the formula (II)

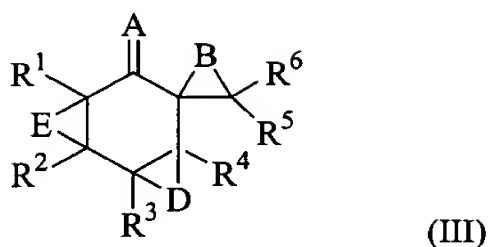


or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) A, B and D are independently O, S,  $\text{NR}^7$  or  $\text{CR}^7\text{R}^8$ ;
- (c)  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $\text{XR}^9$  (wherein  $\text{X} = \text{O}, \text{S}$  or  $\text{NR}^{10}$ );
- (d) alternatively, one or more of  $\text{R}^1$  and  $\text{R}^2$ ,  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ , or  $\text{R}^5$  and  $\text{R}^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (e) each  $\text{R}^7$ ,  $\text{R}^8$ ,  $\text{R}^9$  and  $\text{R}^{10}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

3. A compound of the formula (III):

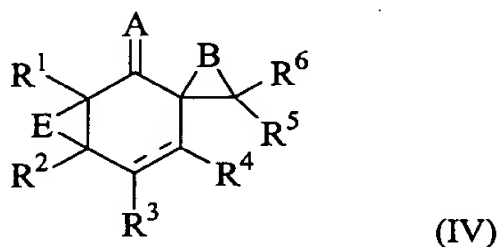


or its pharmaceutically acceptable salt thereof, wherein:

- (a) A, B, D and E are independently O, S,  $\text{NR}^7$  or  $\text{CR}^7\text{R}^8$ ;
- (b)  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $\text{XR}^9$  (wherein  $\text{X} = \text{O}, \text{S}$  or  $\text{NR}^{10}$ );
- (c) alternatively, one or more of  $\text{R}^1$  and  $\text{R}^2$ ,  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ , or  $\text{R}^5$  and  $\text{R}^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (d) each  $\text{R}^7$ ,  $\text{R}^8$ ,  $\text{R}^9$  and  $\text{R}^{10}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

4. A compound of the formula (IV):

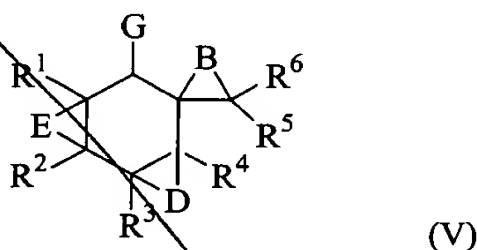


or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) A, B and E are independently O, S,  $\text{NR}^7$  or  $\text{CR}^7\text{R}^8$ ;
- (c)  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $\text{XR}^9$  (wherein  $\text{X} = \text{O}$ , S or  $\text{NR}^{10}$ );
- (d) alternatively, one or more of  $\text{R}^1$  and  $\text{R}^2$ ,  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ , or  $\text{R}^5$  and  $\text{R}^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (e) each  $\text{R}^7$ ,  $\text{R}^8$ ,  $\text{R}^9$  and  $\text{R}^{10}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate

optionally in a pharmaceutically acceptable carrier.

5. A compound of the formula (V):



or its pharmaceutically acceptable salt thereof, wherein:

- (a) B, D and E are independently O, S,  $\text{NR}^7$  or  $\text{CR}^7\text{R}^8$ ;
- (b) G is  $\text{OR}^{11}$ ,  $\text{NR}^{11}\text{R}^{12}$  or  $\text{SR}^{11}$ ;

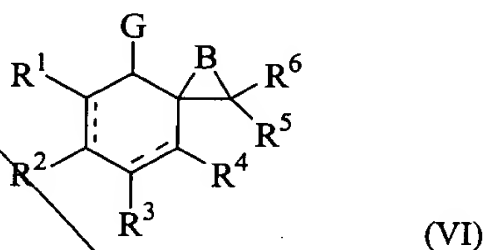
Sub B1  
(c)  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $XR^9$  (wherein  $X = O, S$  or  $NR^{10}$ );

(d) alternatively, one or more of  $R^1$  and  $R^2$ ,  $R^2$  and  $R^3$ ,  $R^3$  and  $R^4$ ,  $R^4$  and  $R^5$ , or  $R^5$  and  $R^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and

(e) each  $R^7$ ,  $R^8$ ,  $R^9$ ,  $R^{10}$ ,  $R^{11}$  and  $R^{12}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate

optionally in a pharmaceutically acceptable carrier.

6. A compound of the formula (VI):



or its pharmaceutically acceptable salt thereof, wherein:

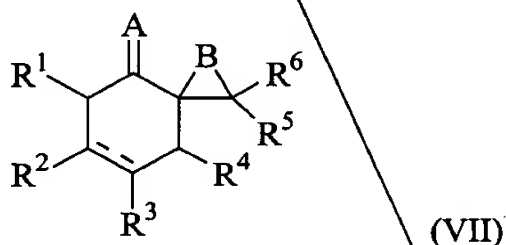
- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) B is O, S,  $NR^7$  or  $CR^7R^8$ ;
- (c) G is  $OR^{11}$ ,  $NR^{11}R^{12}$  or  $SR^{11}$ ;
- (d)  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl,

heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $\text{XR}^9$  (wherein  $\text{X} = \text{O}, \text{S}$  or  $\text{NR}^{10}$ );

- (e) alternatively, one or more of  $\text{R}^1$  and  $\text{R}^2$ ,  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ , or  $\text{R}^5$  and  $\text{R}^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (f) each  $\text{R}^7$ ,  $\text{R}^8$ ,  $\text{R}^9$ ,  $\text{R}^{10}$ ,  $\text{R}^{11}$  and  $\text{R}^{12}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

7. A compound of the formula (VII):



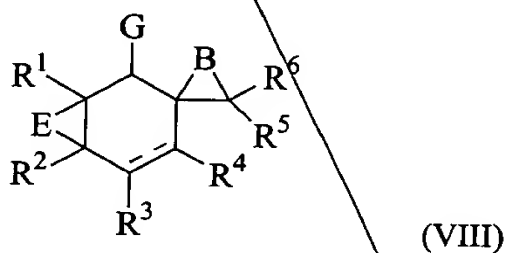
or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) A and B are independently O, S,  $\text{NR}^7$  or  $\text{CR}^8$ ;
- (c)  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl,

phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $\text{XR}^9$  (wherein  $\text{X} = \text{O}, \text{S}$  or  $\text{NR}^{10}$ );

- (d) alternatively, one or more of  $\text{R}^1$  and  $\text{R}^2$ ,  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ , or  $\text{R}^5$  and  $\text{R}^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (e) each  $\text{R}^7$ ,  $\text{R}^8$ ,  $\text{R}^9$  and  $\text{R}^{10}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate; optionally in a pharmaceutically acceptable carrier.

8. A compound of the formula (VIII):



or its pharmaceutically acceptable salt thereof, wherein:

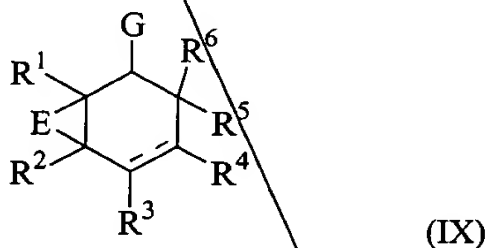
- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) B and E are independently O, S,  $\text{NR}^7$  or  $\text{CR}^7\text{R}^8$ ;
- (c) G is  $\text{OR}^{11}$ ,  $\text{NR}^{11}\text{R}^{12}$  or  $\text{SR}^{11}$ ;
- (d)  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphoryl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a

residue of a natural or synthetic carbohydrate or  $\text{XR}^9$  (wherein  $\text{X} = \text{O}, \text{S}$  or  $\text{NR}^{10}$ );

- (e) alternatively, one or more of  $\text{R}^1$  and  $\text{R}^2$ ,  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ , or  $\text{R}^5$  and  $\text{R}^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (f) each  $\text{R}^7$ ,  $\text{R}^8$ ,  $\text{R}^9$ ,  $\text{R}^{10}$ ,  $\text{R}^{11}$  and  $\text{R}^{12}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

9. A compound of the formula (IX):



or its pharmaceutically acceptable salt thereof, wherein:

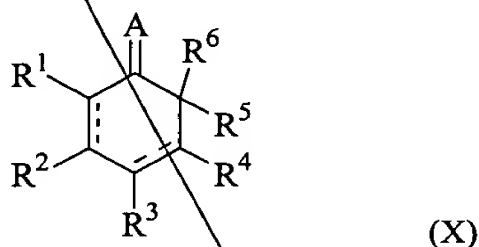
- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b)  $\text{E}$  is  $\text{O}, \text{S}, \text{NR}^7$  or  $\text{CR}^7\text{R}^8$ ;
- (c)  $\text{G}$  is  $\text{OR}^{11}, \text{NR}^{11}\text{R}^{12}$  or  $\text{SR}^{11}$ ;
- (d)  $\text{R}^1, \text{R}^2, \text{R}^3, \text{R}^4, \text{R}^5$  and  $\text{R}^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $\text{XR}^9$  (wherein  $\text{X} = \text{O}, \text{S}$  or  $\text{NR}^{10}$ );



- (e) alternatively, one or more of  $R^1$  and  $R^2$ ,  $R^2$  and  $R^3$ ,  $R^3$  and  $R^4$ ,  $R^4$  and  $R^5$ , or  $R^5$  and  $R^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (f) each  $R^7$ ,  $R^8$ ,  $R^9$ ,  $R^{10}$ ,  $R^{11}$  and  $R^{12}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

10. A compound of the formula (X):



or its pharmaceutically acceptable salt thereof, wherein:

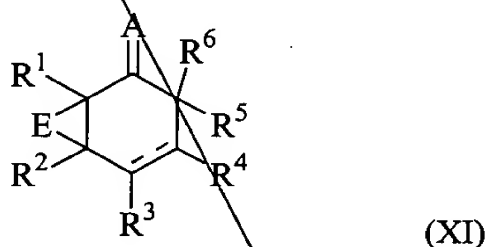
- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) A is O, S,  $NR^7$  or  $CR^7R^8$ ;
- (c)  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $XR^9$  (wherein  $X = O, S$  or  $NR^{10}$ );
- (d) alternatively, one or more of  $R^1$  and  $R^2$ ,  $R^2$  and  $R^3$ ,  $R^3$  and  $R^4$ ,  $R^4$  and  $R^5$ , or  $R^5$  and  $R^6$ , come together to form a bridged compound, preferably as a 3, 5,

6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and

- (e) each  $R^7$ ,  $R^8$ ,  $R^9$  and  $R^{10}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

11. A compound of the formula (XI):



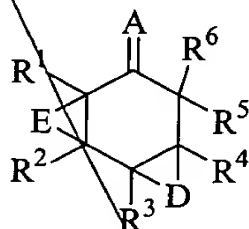
or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b)  $A$  and  $E$  are independently  $O$ ,  $S$ ,  $NR^7$  or  $CR^7R^8$ ;
- (c)  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $XR^9$  (wherein  $X = O$ ,  $S$  or  $NR^{10}$ );
- (d) alternatively, one or more of  $R^1$  and  $R^2$ ,  $R^2$  and  $R^3$ ,  $R^3$  and  $R^4$ ,  $R^4$  and  $R^5$ , or  $R^5$  and  $R^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and

- (e) each  $R^7$ ,  $R^8$ ,  $R^9$  and  $R^{10}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

12. A compound of the formula (XII):



(XII)

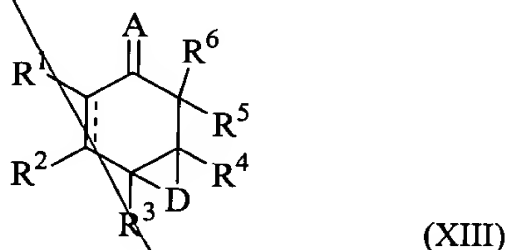
or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) A, D and E are independently O, S,  $NR^7$  or  $CR^7R^8$ ;
- (c)  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $XR^9$  (wherein  $X = O, S$  or  $NR^{10}$ );
- (d) alternatively, one or more of  $R^1$  and  $R^2$ ,  $R^2$  and  $R^3$ ,  $R^3$  and  $R^4$ ,  $R^4$  and  $R^5$ , or  $R^5$  and  $R^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (e) each  $R^7$ ,  $R^8$ ,  $R^9$  and  $R^{10}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl,

heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

13. A compound of the formula (XIII):

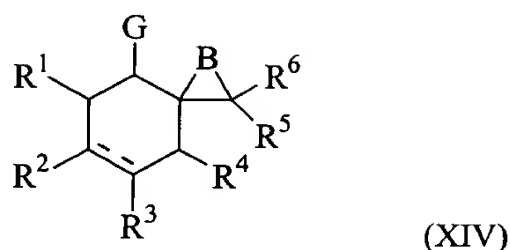


or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) A and D are independently O, S, NR<sup>7</sup> or CR<sup>7</sup>R<sup>8</sup>;
- (c) R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or XR<sup>9</sup> (wherein X = O, S or NR<sup>10</sup>);
- (d) alternatively, one or more of R<sup>1</sup> and R<sup>2</sup>, R<sup>2</sup> and R<sup>3</sup>, R<sup>3</sup> and R<sup>4</sup>, R<sup>4</sup> and R<sup>5</sup>, or R<sup>5</sup> and R<sup>6</sup>, come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (e) each R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup> and R<sup>10</sup> is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

14. A compound of the formula (XIV):

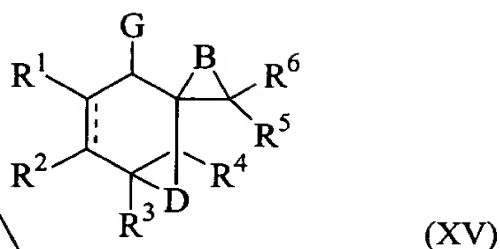


or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) B is O, S,  $\text{NR}^7$  or  $\text{CR}^7\text{R}^8$ ;
- (c) G is  $\text{OR}^{11}$ ,  $\text{NR}^{11}\text{R}^{12}$  or  $\text{SR}^{11}$ ;
- (d)  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $\text{XR}^9$  (wherein  $\text{X} = \text{O}$ , S or  $\text{NR}^{10}$ );
- (e) alternatively, one or more of  $\text{R}^1$  and  $\text{R}^2$ ,  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ , or  $\text{R}^5$  and  $\text{R}^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (f) each  $\text{R}^7$ ,  $\text{R}^8$ ,  $\text{R}^9$ ,  $\text{R}^{10}$ ,  $\text{R}^{11}$  and  $\text{R}^{12}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

15. A compound of the formula (XV):

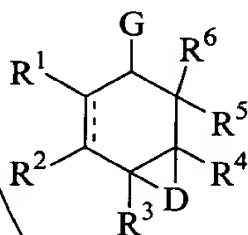


or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) B and D are independently O, S,  $\text{NR}^7$  or  $\text{CR}^7\text{R}^8$ ;
- (c) G is  $\text{OR}^{11}$ ,  $\text{NR}^{11}\text{R}^{12}$  or  $\text{SR}^{11}$ ;
- (d)  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $\text{XR}^9$  (wherein  $\text{X} = \text{O}$ , S or  $\text{NR}^{10}$ );
- (e) alternatively, one or more of  $\text{R}^1$  and  $\text{R}^2$ ,  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ , or  $\text{R}^5$  and  $\text{R}^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (f) each  $\text{R}^7$ ,  $\text{R}^8$ ,  $\text{R}^9$ ,  $\text{R}^{10}$ ,  $\text{R}^{11}$  and  $\text{R}^{12}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

16. A compound of the formula (XVI):



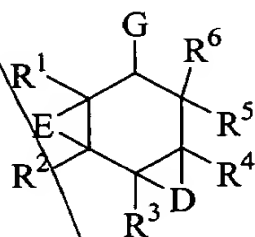
(XVI)

or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) D is O, S, NR<sup>7</sup> or CR<sup>7</sup>R<sup>8</sup>;
- (c) G is OR<sup>11</sup>, NR<sup>11</sup>R<sup>12</sup> or SR<sup>11</sup>;
- (d) R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or XR<sup>9</sup> (wherein X = O, S or NR<sup>10</sup>);
- (e) alternatively, one or more of R<sup>1</sup> and R<sup>2</sup>, R<sup>2</sup> and R<sup>3</sup>, R<sup>3</sup> and R<sup>4</sup>, R<sup>4</sup> and R<sup>5</sup>, or R<sup>5</sup> and R<sup>6</sup>, come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (f) each R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>, R<sup>11</sup> and R<sup>12</sup> is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

17. A compound of the formula (XVII):



(XVII)

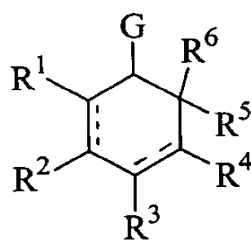
or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) D and E are independently O, S,  $\text{NR}^7$  or  $\text{CR}^7\text{R}^8$ ;
- (c) G is  $\text{OR}^{11}$ ,  $\text{NR}^{11}\text{R}^{12}$  or  $\text{SR}^{11}$ ;
- (d)  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $\text{XR}^9$  (wherein  $\text{X} = \text{O}, \text{S}$  or  $\text{NR}^{10}$ );
- (e) alternatively, one or more of  $\text{R}^1$  and  $\text{R}^2$ ,  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ , or  $\text{R}^5$  and  $\text{R}^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (f) each  $\text{R}^7$ ,  $\text{R}^8$ ,  $\text{R}^9$ ,  $\text{R}^{10}$ ,  $\text{R}^{11}$  and  $\text{R}^{12}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.



18. A compound of the formula (XVIII):



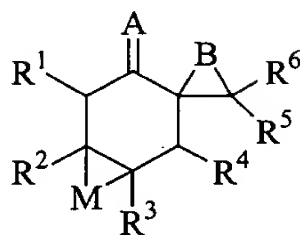
(XVIII)

or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) G is  $OR^{11}$ ,  $NR^{11}R^{12}$  or  $SR^{11}$ ;
- (c)  $R^1$ ,  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $XR^9$  (wherein  $X = O, S$  or  $NR^{10}$ );
- (d) alternatively, one or more of  $R^1$  and  $R^2$ ,  $R^2$  and  $R^3$ ,  $R^3$  and  $R^4$ ,  $R^4$  and  $R^5$ , or  $R^5$  and  $R^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (e) each  $R^7$ ,  $R^8$ ,  $R^9$ ,  $R^{10}$ ,  $R^{11}$  and  $R^{12}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

19. A compound of the formula (XIX):



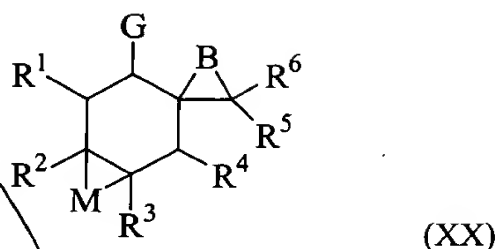
(XIX)

or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) A, B and M are independently O, S, NR<sup>7</sup> or CR<sup>7</sup>R<sup>8</sup>;
- (c) R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup>, R<sup>5</sup> and R<sup>6</sup> are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or XR<sup>9</sup> (wherein X = O, S or NR<sup>10</sup>);
- (d) alternatively, one or more of R<sup>1</sup> and R<sup>2</sup>, R<sup>2</sup> and R<sup>3</sup>, R<sup>3</sup> and R<sup>4</sup>, R<sup>4</sup> and R<sup>5</sup>, or R<sup>5</sup> and R<sup>6</sup>, come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (e) each R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup> and R<sup>10</sup> is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

20. A compound of the formula (XX):



or its pharmaceutically acceptable salt thereof, wherein:

- (a) the dotted line indicates the presence of either a single or double bond, wherein the valences of a single bond are completed by hydrogens;
- (b) B and M are independently O, S,  $\text{NR}^7$  or  $\text{CR}^7\text{R}^8$ ;
- (c) G is  $\text{OR}^{11}$ ,  $\text{NR}^{11}\text{R}^{12}$  or  $\text{SR}^{11}$ ;
- (d)  $\text{R}^1$ ,  $\text{R}^2$ ,  $\text{R}^3$ ,  $\text{R}^4$ ,  $\text{R}^5$  and  $\text{R}^6$  are independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, carbonyl, carboxylic acid, ester, carbamate, amide, amine, hydroxyl, alkoxide, nitro, cyano, azide, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, phosphonyl, phosphinyl, phosphoryl, phosphine, a residue of a natural or synthetic amino acid, a residue of a natural or synthetic carbohydrate or  $\text{XR}^9$  (wherein  $\text{X} = \text{O}, \text{S}$  or  $\text{NR}^{10}$ );
- (e) alternatively, one or more of  $\text{R}^1$  and  $\text{R}^2$ ,  $\text{R}^2$  and  $\text{R}^3$ ,  $\text{R}^3$  and  $\text{R}^4$ ,  $\text{R}^4$  and  $\text{R}^5$ , or  $\text{R}^5$  and  $\text{R}^6$ , come together to form a bridged compound, preferably as a 3, 5, 6 or 7 membered ring, to form a cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, heterocyclic, heteroaryl or heteroaromatic; and
- (f) each  $\text{R}^7$ ,  $\text{R}^8$ ,  $\text{R}^9$ ,  $\text{R}^{10}$ ,  $\text{R}^{11}$  and  $\text{R}^{12}$  is independently hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, cycloalkynyl, aryl, alkaryl, arylalkyl, heterocyclic, heteroaryl, heteroaromatic, alkcarbonyl, a residue of a natural or synthetic amino acid or a residue of a natural or synthetic carbohydrate;

optionally in a pharmaceutically acceptable carrier.

21. A method for the treatment or prophylaxis of an inflammatory disorder in a host comprising administering an effective treatment amount of a compound according to any one of claim 1-20.
22. A method for the treatment or prophylaxis of an autoimmune disorder in a host comprising administering an effective treatment amount of a compound according to any one of claim 1-20.

add  
a'  
add  
B1